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INTEROFFICE CORRESPONDENCE

DATE: September 30, 1991

TO: J. A. Ciucci, Regulated and Sanitary Waste Operations, Bldg. 750, X5841

FROM:  D. W. Pontius, Remediation Programs, Bldg. T130B, X5536

SUBJECT: OPERABLE UNIT NO. 2 (OU 2), SOUTH WALNUT CREEK BASIN INTERNAL REPORT - DWP-103-91

On September 3, 1991, Environmental Management conducted a critique meeting to evaluate the events surrounding the incomplete collection of surface water base flows for the OU 2 Interim Remedial Action Treatability Study. The conclusion of this meeting was that the events warrant an internal reportable action rather than an unusual occurrence report (UOR).

Background:

The Final Interim Measure/Interim Remedial Action (IM/IRA) Plan dated March 8, 1991 proposed surface water be diverted from South Walnut Creek and be treated by a granular activated carbon (GAC) treatment system as part of a field-scale treatability study.

At the conclusion of the treatability study, a performance report will be submitted to the Environmental Protection Agency (EPA) and the Colorado Department of Health (CDH). This report will establish performance requirements and request acceptance of the system as the actual IRA. If accepted, this unit would be operated until implementation of the final remedial action in the late 1990s.

The IM/IRA plan does not specifically state a requirement for 24-hour collection of base flows from South Walnut Creek, nor are there any regulatory requirements; however, EPA and CDH expect such collection. Surface water collection and GAC operations began on May 13, 1991 with 24 hours/day staffing and continued until August 18, 1991 when staffing was reduced to 12 hours/day.

Occurrence:

During the period from August 18, 1991 to August 29, 1991, there may have been several hours each day (approximated as 2 to 4 hours) that base flows were not collected during the 12-hour unstaffed period. The cause of this non-collection was that after the storage tank became filled with the collected surface water, level indicators automatically shut off the diversion pumps until operators came on shift at 6:00 A.M., resulting in uncollected base flows. This shut-off could have occurred earlier than anticipated, particularly during heavy rainfall.

It was the opinion of the Remediation Programs Division (RPD) that the periods of non-collection were not a problem because of the following:

- 1) Bypassed water did not constitute a spill release;

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- 2) Most of the base flows were collected;
- 3) All bypassed water was collected in the B-series ponds before discharge per the National Pollutant Discharge Elimination System (NPDES) requirements and
- 4) Twelve-hour treatment operation was consistent with the concept of this project.

Immediate Actions:

On August 29, 1991 at 2:30 p.m., DOE/RFO was apprised of this occurrence. DOE/RFO staff notified EPA and CDH of this matter. On the same day at 3:00 p.m., the RPD subcontractor was directed to continue 24-hour staffed operation until further notice. This action re-established collection of all base flows by providing operating personnel onsite around the clock to operate, maintain, repair the system if necessary, and contact authorities in case of an emergency.

Cause Analysis:

Direct Cause: Inadequately sized water storage volume and improper planning.

Contributing Cause: Improperly defined program requirements and operating procedures related to 12-hour staffed operation.

Root Cause: Missed communication.

Corrective Actions:

On August 30, 1991 a modification was submitted to the EG&G Rocky Flats Purchasing Office to contractually extend the 24-hour staffed operation through November 30, 1991. That modification has been negotiated and is expected to become effective the week of October 7, 1991.

Between now and November 30, 1991 RPD will confirm the requirement for 24-hour base flow collection with the DOE/RFO and EPA and CDH. RPD will evaluate the cost-effectiveness of modifying the design of the system, particularly the surface water collection and storage system, in lieu of continuing with 24-hour staffed operation.

If you have any questions regarding this matter, please call me at extension 5536.

DWP:cet

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